

Claims

1. Device for die-cutting a stack of sheet-like materials, particularly, labels, whereby the stack to be punched is pressed into the die-cutter blade by a relative movement of a punching ram and a hollow cylindrical die-cutter blade, characterized in that a frame (16) with clamping elements (17) mounted in, and adjustable and lockable relative to it, is provided for fixation of the die-cutter blade (18), and also an adjusting element (70, 72) mounted in the frame (16) is provided for aligned orientation with a minimum of one orientation edge of the adjusting element (70, 72) with one knife edge section (69) of the die-cutter blade (18) prior to fixation of the adjusted clamping elements 17.
2. Device according to claim 1, characterized in that the minimum single orientation edge of the adjusting element (70, 72) is oriented in alignment relative to a leading knife edge (19) of the die-cutter blade (18).
3. Device according to claim 1 or 2, characterized in that the adjusting element is designed as an adjusting ruler (70) and the orientation occurs along one of the orienting edges (86) of the adjusting ruler (70).
4. Device according to one of the claims 1 to 3, characterized in that the orientation edge (86) of the ruler (70) is positioned parallel to one frame edge (68), in the area of which the frame (16) is mounted in a punch platen (12) of the device.
5. Device according to claim 3 or 4, characterized in that the adjusting ruler (70) is located behind the die-cutter blade (18) relative to the leading knife edge (19) of the die-cutter blade (18).
6. Device according to claim 1 or 2, characterized in that the adjusting element is designed as an adjusting sheet (72) arranged in parallel to the leading knife edge (19) of the die-cutter blade (18), which sheet is provided with an opening (74) corresponding to the opening cross-section of the die-cutter blade in the area of the knife edge (19).
7. Device according to claim 6, characterized in that the adjusting sheet (72) is located in front of the die-cutter blade (18) relative to the leading knife edge (19) of the die-cutter blade (18).

8. Device according to claim 6 or 7, characterized in that the adjusting sheet (72) is held in a support (73) which can be connected to the frame (16).
9. Device according to one of the claims 1 to 8, characterized in that the frame (16) exhibits a closed frame portion (40, 41) and at least one clamping beam (53) which is relatively adjustable in the frame portion (40, 41) and is lockable in the frame portion (40, 41), whereby the die-cutter blade (18) is held in the clamping beam (53) and the frame portion (40, 41), in a section (41) of the frame portion (40, 41) that is arranged in parallel to the clamping beam (53).
10. Device according to one of the claims 1 to 9, characterized in that the frame (16) exhibits a frame portion (40, 41) and a primary clamping beam (53), which is slideable and fixable within the frame portion (40, 41), whereby the die-cutter blade (18) is held in a primary clamping beam (53) and the frame portion (40, 41), in a distance (41) of the frame section (40, 41) which is arranged in parallel to the primary clamping beam (53); and parallel to the primary clamping beam (53) a secondary clamping beam (54) is arranged, which is slideable and fixable within the frame portion (40, 41), as well as clamping agents (58) for tensioning the primary and secondary clamping beam (53, 54) are provided, in such a way that the primary clamping beam (53) can be tensioned against the die-cutter blade (18).
11. Device according to claim 10, characterized in that the Frame Portion (40, 41) is of closed design.
12. Device according to claim 10 or 11, characterized in that the primary and secondary clamping beams (53, 54) are connectable to the frame portion (40, 41) as a form- or friction-fit.
13. Device according to one of the claims 10 to 12, characterized in that the clamping elements (17) for locking the die-cutter blade (18) in place are designed as clamping shoes (44).
14. Device according to one of the claims 1 to 13, characterized in that the die-cutter blade (18) is adjustably held in a frame (16), which can be slid into a receiving apparatus (13) perpendicular to the relative direction of motion (K) of the punching ram (7) and the die-cutter blade (18), and fixed in a centered position, whereby the receiving apparatus (13) is mounted in a punch platen (12) and is adjustable relative to it.
15. Device according to claim 14, characterized in that the receiving apparatus (13) exhibits two gibs (14) and (15) arranged in parallel, between which the frame (16) can be slid.

16. Device according to claim 14 or 15, characterized in that the frame (16) can be slid in a plane parallel to the punch platen (12), and in particular is adjustable in the direction of two major axes arranged essentially perpendicular to one another, and is also tiltable in the plane.
17. Device according to one of the claims 14 to 16, characterized in that the frame (16) exhibits a T-slot (42) essentially in the direction of one major axis, in which a centering bolt (37), moveable in essentially the direction of the other major axis, can be placed, which bolt in particular is mounted in the punch platen (12).